

Recommendations on Blood Lead Testing for Refugees

Blood Lead Testing



Perform blood lead testing for **all** refugee children 6 months to 16 years & **all** pregnant women upon entering the United States (within 90 days of arrival, preferably 30 days).



Repeat blood lead testing for **all** children 6 months to 6 years of age & **all** pregnant women 3 - 6 months after initial screening, **regardless** of initial screening blood lead level (BLL) results.

Post-arrival Evaluation & Therapy



Perform nutritional evaluations on **all children & pregnant women upon entering the U.S.**

- ➔ At minimum, evaluation should contain assessment of children's iron status, including hemoglobin/hematocrit & evaluation of 1 or more of the following:
- Mean corpuscular volume (MCV) with red cell distribution width (RDW)
 - Ferritin
 - Transferring saturation
 - Reticulocyte hemoglobin content



Provide appropriate nutritional and vitamin supplements as indicated to prevent childhood lead poisoning.

Long-term Follow-up



Schedule for follow-up testing for children identified with elevated BLLs:

Venous blood lead level (µg/dL)	Early follow-up (first 2-4 tests after identification)	Late follow-up (after BLL begins to decline)
≥ 5 - 9**	3 months*	6-9 months
10-19	1-3 months*	3-6 months
20-24	1-3 months*	1-3 months
25-44	2 weeks-1 month	1 month
≥ 45	As soon as possible	As soon as possible

**CDC recommends ongoing monitoring of BLLs greater than or equal to the reference value, currently 5 µg/dL. The schedule for follow-up testing is aligned with CDC recommendations.

*Some PCPs may choose to repeat blood lead tests on all new patients within a month to ensure that their BLL level is not rising more quickly than anticipated.



Continue neurodevelopmental monitoring long after a child's BLL has been reduced; a child's elevated BLL history should be part of his/her **permanent** record.

DID YOU KNOW?

REFUGEE CHILDREN...

are **TWICE** as likely as U.S. children to have elevated blood lead levels (BLLs).

→ Some sub-populations of refugee children are 12-14.5 times more likely to have elevated BLLs.

LEAD...

- Is particularly harmful to the developing brain and nervous system of fetuses and young children.
- Is a poison that affects almost every system in the body.
- Most children will not show any signs or symptoms.
- Can pass from a mother to her unborn baby.
 - Bone lead stores are mobilized in pregnancy & lactation for women with prior lead exposure
- Can cause a child's IQ to drop 1 to 3 points for every increase of 10µg/dL in BLL.



Health Effects of Lead Exposure



Lower Blood Lead Level

Developmental delay
Learning difficulties
Irritability
Sluggishness and fatigue
Abdominal pain
Vomiting
Constipation
Hearing Loss

NO SAFE LEVEL OF LEAD EXISTS!

Extremely High Blood Lead Level

Severe brain damage
Death

MORE FACTS

- Iron deficiency is prevalent among refugee children and increase gastrointestinal absorption of lead.
- Neurodevelopmental monitoring should continue after BLL has reduced because many deficits will not manifest until child starts school.

Potential Sources of Lead in Arizona



Homes built before 1978 with chipping, peeling or flaking paint, or imported toys with lead-based paint.



Imported spices & makeup, such as turmeric, coriander, black pepper, thyme, hanuman sindoor, and *kohl*.



Imported glazed pottery, commonly used to cook beans or hot chocolate.



Home remedies such as *greta* or *azarcon* used to treat stomach illness or *bakhoo* incense used to calm infants.



Soil or dust tracked into the house contaminated with lead.



Hobbies such as hunting and fishing that use leaded bullets or fish sinkers; some artist paints and furniture refinishing.



Work in lead-related industries such as construction, mining, welding, or plumbing.



Eating stones, dirt, clay, chalk, paint chips, etc. due to pica disorder; common among pregnant women.

